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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/690,403

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Hiroki Moriyama

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EXAMINER

REKSTAD, ERICK J

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/690,403

Applicant(s)

MORIYAMA, HIROKI

Examiner

ERICK REKSTAD

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 6, 7, 10, 11, 16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 7, 10, 11, 16 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date 3/7/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This is a Non-Final Office Action for Application No. 10/690,403 in response to the RCE filed on February 25, 2008.

Response to Arguments

Applicant's arguments filed February 25, 2008 have been fully considered but they are not persuasive.

The Applicant argues the rejection of claim 1 in view of the current amendment. Specifically, the Applicant argues Moriyama only states that endoscope 402 has a larger diameter than that of endoscope 302, but does not mention the size of the diameters of 313 and 413. The Examiner respectfully disagrees as Moriyama specifically teaches the insertion unit 306 of the endoscope 302 has a small diameter and the insertion unit 406 of the endoscope 402 has a larger diameter than the insertion unit 306 (Col 19 Lines 40-41 and Lines 45-47). The portions argued by the Applicant (313 and 413) are part of the insertion units (306 and 406). As stated in the rejection below, Moriyama is silent on the insertion unit having a varying diameter. Therefore, it is viewed by the Examiner that section 313 has the diameter of insertion unit 306 and 413 has the diameter of insertion unit 406.

The Applicant further argues Ouchi fails to teach a relationship between the small-diameter portion and the large-diameter portion. The Examiner respectfully disagrees as it is viewed by the Examiner that Figures 1 and 5 clearly indicate the relationship between a small-diameter portion and a large-diameter portion.

Specifically, structure A of Figure 1 has a smaller diameter than structure B. Further, structure 3c of Figure 5 has a smaller diameter than structure 3f.

The Applicant argues the combination of Moriyama and Ouchi. The Examiner respectfully disagrees. As shown below for the rejection of the claims, Moriyama teaches the use of an endoscope system which provides several endoscopes for different body cavities with the feature of compatibility (Col 2 Lines 33-56). Compatibility is defined as the multiple endoscopes having the same feeling of hardness to the operator (Col 2 Lines 33-46). Moriyama further teaches such a system provides endoscopes with different diameters and flexibilities (Col 19 Lines 5-11, 40-41 and 45-47 and Col 26 Line 57-Col 27 Line 8). Ouchi teaches an improved means of providing flexible endoscopes where the endoscope has a varying diameter (Figs. 1 and 5, Col 7 Lines 13-35 and Col 8 Lines 3-21). As stated below, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide an endoscope using the flexible tubing of Ouchi with the endoscope system of Moriyama in order to provide an endoscope with varying flexibility as taught by Ouchi (Abstract, Col 8 Lines 3-21).

With regards to the specific diameter requirements of the claims, it is viewed by the Examiner that endoscopes have an inherent maximum and minimum diameter value based on the requirement for insertion into a body cavity. Therefore, the providing of a variety of diameter endoscopes within this range would be an obvious variation of the system taught by Moriyama and Ouchi, since the combination does not provide an unexpected result.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 7, 10, 11, 16 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For the following claims the Examiner uses the following variables to define the diameters for the Endoscopes:

L=Large-diameter portion of first endoscope

S=Small-diameter portion of first endoscope

D2=Diameter of second endoscope

D3=Diameter of third endoscope

The claims provide several unsupported situations where the diameters may not meet the limitations required by claim 1.

[claim 6]

Claim 1 provides the following requirements for the diameters of the endoscopes: "larger-diameter portion... outer diameter is larger than the outer diameter of the small-diameter portion", "a third endoscope...is substantially equal to or smaller than the outer diameter of the soft section of the second endoscope", and "the outer diameter of the larger diameter portion of the first endoscope is substantially equal to or smaller than the outer diameter of the soft section of the second endoscope, and is substantially equal to or larger than the outer diameter of the soft section of the third endoscope".

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Put mathematically:

$$S < L \quad S3 \leq S2 \quad L \leq S2 \quad L \geq S3$$

Claim 6 provides the additional limitation of "outer diameter of the small-diameter portion of the first endoscope is substantially equal to the outer diameter of the soft section of the third endoscope, and the outer diameter of the large-diameter portion of the first endoscope is not equal to the outer diameter of the soft section of the second endoscope". That is $S=S3$ and $L \neq S2$. The claim lacks the necessary limitations to maintain the scope of the Application, as an example the claim does not prevent $L=S3$ which would present the unsupported situation of $L=S$ for the first endoscope.

[claim 7]

Using the above defined variables, claim 7 requires $S3 \leq S$ and $L \neq S2$. The claim lacks the necessary limitations to maintain the scope of the Application, as an example the claim does not prevent $L=S3$ which would present the unsupported situation of $L=S$ for the first endoscope.

[claim 10]

Using the above defined variables, claim 10 requires $S3=S$. The claim lacks the necessary limitations to maintain the scope of the Application, as an example the claim does not prevent $L=S3$ which would present the unsupported situation of $L=S$ for the first endoscope.

[claim 11]

Using the above defined variables, claim 11 requires $S3 \leq S$. The claim lacks the necessary limitations to maintain the scope of the Application, as an example the claim

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does not prevent $L=S3$ which would present the unsupported situation of $L=S$ for the first endoscope.

[claim 16]

Using the above defined variables, claim 16 requires $S=S3$, $L=S2$, and $L!=S2$.

The claim lacks the necessary limitations to maintain the scope of the Application, as an example it is impossible for $S2$ to be equal to and not equal to L .

[claim 18]

Using the above defined variables, claim 18 requires $S=S3$ and $L=S2$. The claim lacks the necessary limitations to maintain the scope of the Application, as an example the claim does not prevent $S3=S2$ which would present the unsupported situation of $L=S$ for the first endoscope.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6, 7, 10, 11, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,885,208 to Moriyama in view of US Patent 4,690,175 to Ouchi et al.

[claim 1]

As shown in Figure 10, Moriyama teaches the use of multiple endoscopes (7, 207, 307, 407) for examination in a body cavity (Col 1 Lines 10-16). The endoscopes each share the video processor (4) and light source (3)(Col 19 Lines 13-16). Moriyama further teaches the soft portion (13, 213, 313, 413) are part of the insertion units (6, 206, 306, 406) of the endoscopes (Col 19 Lines 25-29). Moriyama teaches the insertion units have different diameters (Col 19 Lines 40-41 and 45-47). Therefore the soft portions would have different diameters since they are part of the insertions units, as shown in the figure. Note, the citation specifically states endoscope 402 has a large diameter insertion unit (406) and endoscope 302 has a small diameter insertion unit (306). It is further noted by the Examiner that Figure 10 depicts endoscopes 7, 207, and 307 all having the same diameter insertion units. These endoscopes satisfy the requirements for the second and third endoscope in claim 1. Moriyama further teaches the use of varying softness for the endoscopes (Figs. 23, 24, 26, 27, 29-33). Figure 23 depicts an endoscope with an overall soft section (512A). This soft section's characteristics are determined using armor tubes (531a and 531b). These tubes exhibit different hardness levels (Col 26 Line 57-Col 27 Line 8). Moriyama teaches the use of varying flexibilities in order to provide an endoscope system which has a feeling of compatibility to the operator (Col 2 Lines 33-56). Moriyama is silent on an endoscope with an insertion unit containing a small diameter portion and a large diameter portion as required by the first endoscope in claim 1.

Ouchi teaches the use of flexible tubes for use with endoscopes to vary the flexibility of the endoscope tube and facilitate insertion into the body cavity (Abstract,

Col 1 Lines 9-13). Ouchi specifically teaches the use of a small diameter(A) and a large diameter(B) in order to vary the flexibility (Fig. 1 and 5, Col 7 Lines 13-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide an endoscope using the flexible tubing of Ouchi with the endoscope system of Moriyama in order to provide an endoscope with varying flexibility as taught by Ouchi (Abstract, Col 8 Lines 3-21).

Though Moriyama and Ouchi are silent on a larger-diameter portion being substantially equal to or smaller than the outer diameter of the soft section of a second endoscope and a larger-diameter portion being substantially equal to or larger than the outer diameter of the soft section of a third endoscope, endoscopes by their very nature have a minimum and a maximum diameter in order to facilitate insertion into the body cavity. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide endoscopes with a diameter near the maximum diameter, the minimum diameter and in between the two extremes in order to facilitate the use of the endoscopes for examining different body cavities as suggest by Moriyama (Col 2 Lines 47-56).

[claims 6, 7, 10, 11, 16 and 18]

As best understood by the Examiner with respect to the above 112 rejection, Moriyama shows endoscopes (7, 207, and 307) having different diameters and lengths of insertion units (2, 202, 302) (Fig. 10). Moriyama further suggest different softness characteristics for different endoscopes (Figs. 23, 24, 26, 27, 29-33). Moriyama further teaches the importance of providing a system which allows for multiple types of

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endoscopes for insertion into different body cavities with a compatible feel (Col 2 Lines 34-56). As stated above, endoscopes by their very nature have a minimum and a maximum diameter in order to facilitate insertion into the body cavity. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide endoscopes with a diameter near the maximum diameter, the minimum diameter and in between the two extremes in order to facilitate the use of the endoscope for examining different body cavities as suggest by Moriyama (Col 2 Lines 47-56).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERICK REKSTAD whose telephone number is (571)272-7338. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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